

CHAPTER 5.0

CUMULATIVE IMPACTS

5.1 INTRODUCTION

As required by Section 15130 of the CEQA Guidelines, the EIR analyzes the cumulative impacts of the proposed project. Section 15355 of the CEQA Guidelines defines cumulative impacts as “...*two or more individual environmental effects which, when considered together, are considerable or which compound or increase other environmental impacts.*” Cumulative impacts may result from individual effects of a single project or the effects of several projects that are developed within a particular window of time.

The discussion of cumulative impacts is guided by the standards of practicality and reasonableness. Two methods may be used to evaluate cumulative impacts: **a)** a list of past, present and probable future projects (Cal. Code Regs., Title 14 §15130(b)(1)(A); or **b)** a summary of projections from a planning document which describes or evaluates regional conditions ((Cal. Code Regs., Title 14 §15130(b)(2)(B)).

For this analysis, the projection method is used. Projections are based on SANDAG year 2020 population projections and the City of Carlsbad General Plan Land Use Element density projections. The implementation of the CIP projects of the Water and Sewer Master Plans would primarily involve expansion and rehabilitation of existing facilities as well as construction of new facilities. This Program EIR evaluates the potential effects of these projects and recommends mitigation measures to be implemented after subsequent, project-level environmental review, where necessary, at the time of approval of each project. The Master Plan Updates propose a program of phased improvements keyed to the City’s growth and include recommended upgrades and new facilities to meet the projected needs of the City.

Cumulative effects of the Program EIR can be considered in relation to the environmental effects of all development throughout the City. In the discussion in *Section 5.2* below, cumulative effects are considered for the issues discussed in *Chapter 4* of this PEIR.

5.2 ANALYSIS OF CUMULATIVE IMPACTS

Aesthetics

The City of Carlsbad is a predominantly residential community with a coastal and mixed

development atmosphere. This visual landscape consists of a mixture of urban uses, infrastructure, and hillsides. As Carlsbad continues to develop, the appearance of the City will continue to change to a more urbanized landscape. Cumulative impacts related to aesthetics for the CIP projects are not considered significant, since they are expected features in the developed landscape, are mostly underground, are modifications to existing facilities, and would receive design review for conformance with community aesthetic standards in future environmental documentation and/or project design review.

Air Quality

Except in cases of point-source pollution and rare traffic-related air pollution “hot spots”, air quality must be considered on a cumulative, air basin-wide basis. Strategies for the control of both point-source and mobile pollution generation are the responsibility of the APCD. APCD rules and regulations apply uniformly throughout the District and the rest of the air basin and to all potential sources of pollutant emissions. Thus, air pollution control is applied on a cumulative basis. As noted in *Section 4.2, Air Quality*, the proposed Master Plans are consistent with the growth assumptions of the regional air quality plan and incorporate all feasible and available air quality control measures through regulation by APCD. Also, the RAQS is based on development as planned under the applicable general plans. The Master Plans are consistent with the planned development as identified in the City of Carlsbad General Plan; therefore, the project is consistent with the RAQS. Cumulative effects would be less than significant.

Biological Resources

The project components in the Master Plans are intended to serve growth in the City of Carlsbad, and are required as infrastructure in support of existing and planned future growth in the City. Water and sewer facilities have an initial impact on biological resources where they are located in undeveloped areas, but are usually low-activity facilities after construction. They may, therefore, be compatible with surrounding biological conservation in many situations. The Master Plan facilities are, however, intended to serve development in the City and should be considered together with the effects of development on biological resources in the assessment of cumulative effects.

The City’s environmental review process for all development projects, including water and sewer facilities, requires an assessment of impacts and appropriate mitigation where there is a potential for an effect on biological resources. The process includes the identification of such potential effects in an environmental Initial Study and subsequent

surveys and biological resources technical reports if necessary. Mitigation is accomplished in standardized ways, and for some impacts, such as effects on endangered species and wetlands, follows the procedures required by resource agencies such as the USFWS and CDFG. Effects on resources such as wetlands and state and federally listed species also require permits from the resource agencies.

As described in *Section 4.3*, the City is participating in the MHCP, which is intended to mitigate for the biological impacts of planned growth through the creation of a new process for the issuance of federal and state permits and other authorizations under federal and state law. The City of Carlsbad is developing its own Subarea Plan (the Habitat Management Plan) within the MHCP framework. The end result of the MHCP planning process is to provide a regional conservation plan to mitigate the cumulative effects of growth in the region.

Cumulative impacts of Water and Sewer Master Plan projects occurring in the MHCP focused planning areas would be cumulatively significant considered together with other development projects in the City and region, due to temporary losses in habitat value. Mitigation would be accomplished through the assessment and mitigation of project-specific impacts as individual components of the Master Plans are implemented and, when the MHCP is implemented, through a regional conservation plan in cooperation with CDFG, USFWS, and other cities in the area. The City of Carlsbad HMP will address cumulative biological effects as part of the MHCP process; however, until that document is implemented, cumulative impacts would be significant and would remain unmitigated.

Cultural Resources

Many areas within the City are known to be rich in cultural resources. The City requires an evaluation of cultural resources as a part of environmental review for land development projects needing discretionary approval from the City. As part of that review, all cultural resources sites would be evaluated for importance and, if found to be significant, either preserved or mitigated by the recovery of all relevant scientific information represented by the site. The same procedures are followed by other agencies whose projects may affect cultural resources in the City, such as Caltrans and SDGE. *Section 4.4, Cultural Resources*, established similar mitigation requirements for all Master Plan components that may impact cultural resources. Because this uniform policy is designed in each case to reduce impacts on cultural resources to below a level of significance on site-specific basis, cumulative impacts would be less than significant.

Geology and Soils

Geologic/soils hazards associated with cumulative development within the City would be evaluated on a site-specific basis. Geologic and soils impacts and required mitigation would be evaluated on the respective properties and projects on a project-by-project basis through the use of geotechnical reports and Phase I Site Assessments. Therefore, with implementation of recommended mitigation measures on a project-by-project basis, no significant cumulative geologic/soils impacts are anticipated.

Hazards and Hazardous Materials

Cumulative hazards and hazardous materials impacts and any potential mitigation would be evaluated on a project-by-project basis as minimal information is available at this program level of analysis. With implementation of recommended mitigation measures in *Section 4.6, Hazards and Hazardous Materials*, and project-specific mitigation measures identified on a case-by-case basis, no significant cumulative hazards and hazardous materials impacts are anticipated.

Hydrology and Water Quality

Runoff from project construction areas would contribute an incremental increase in flows within the Buena Vista and Agua Hedionda Creek basins and would combine with increases attributable to adjacent developments. Total runoff in the creek basins would be short-term and would be cumulatively considerable. Project-by-project BMPs, including completing scour analyses for projects within 100-year floodplains and obtaining dewatering permits from RWQCB, would reduce sediment loads and downstream erosion to less than significant. In addition, compliance of all future projects with applicable federal, state and local regulations for stormwater and construction discharges would reduce cumulative impacts to water quality to a level below significance.

The Master Plan Update projects would not substantially increase the amount of impervious surfaces and would not result in cumulative hydrologic impacts as a result of increasing cumulative runoff volumes.

Land Use and Planning

Facilities and improvements proposed in the Master Plan Updates are based on growth and population projections derived from SANDAG population estimates and projections. In the course of preparing the Master Plan Updates, existing, proposed and designated land uses were used to generate the capacity data for the modeling of the systems that revealed deficiencies and indicated the need for improvements or new facilities. The location, capacity, and phasing of projects in the Master Plan Updates conform to existing and planned uses overall. The Master Plan Updates projects do not affect land use in the affected jurisdiction, but are designed to match the necessary infrastructure for wastewater in support of the land uses.

Adoption of the Master Plan Updates, when considered together with the general plans and other planning for the affected jurisdictions, would not result in significant land use impacts, but would support the jurisdictions' existing land uses, and development in conformance with applicable general plans. No significant cumulative land use impacts would occur with the proposed Master Plan Updates.

Noise

As development increases in the City, some increase in ambient noise levels is inevitable, with localized effects. This increase would be due primarily to traffic noise, as roads are constructed to serve new development, and to point sources of noise, such as manufacturing operations, auto repair shops, power tool use at residences and businesses, and a host of other activities associated with urban and suburban life. Some wastewater projects would contribute incrementally to this general pattern, especially during short-term construction activities. The City's Noise Ordinance and Noise Guidelines Manual are designed to control the exposure of residents to excessive levels of noise. All CIP projects with a potential for long-term noise production would be evaluated for excessive noise generation and mitigation would be applied on a project-specific basis. Combined with regulation and attenuation of other sources consistent with the Noise Ordinance and Noise Guidelines Manual, the proposed Master Plan Updates' contribution to cumulative noise impacts would be less than significant.

Transportation/Traffic

As discussed in *Section 4.10, Transportation/Traffic*, the proposed project components in the Master Plan Update would contribute to short-term impacts to traffic circulation on local roadways. Potentially significant cumulative traffic circulation impacts could result over the short-term if multiple projects were under construction simultaneously and in the same general location. Short-term traffic impacts caused by construction of the projects proposed within the study area would result from street closures, increased truck traffic, and disruption of local traffic to residences and businesses. As the CIP projects would be phased over a 20-year period and would not proceed simultaneously, it is anticipated that cumulative short-term impacts to project component roadways could be mitigated to a level of less than significant through coordination and implementation of traffic control plans at the time of construction with the City Engineering Department (for impacts to City roads) and with the planning entities for the Cities of Oceanside and San Marcos (for impacts to roads within their respective jurisdictions). Encroachment permits are required for all construction affecting public rights-of-way. This permitting process is the control point for the maximum possible reduction of cumulative traffic impacts, and is designed to reduce direct and cumulative impacts to below a level of significance.

Utilities and Service Systems

The proposed project components in the Master Plan Updates would not result in additional demands on utilities and services. Service providers have adopted plans to respond to future demands with system improvements. These plans are periodically updated based on both individual provider's projections and SANDAG population forecasts. Therefore, this project in combination with other projects in the area would not have a significant cumulative impact on utilities and service systems.